OBADALEK, J.

Present methods of cementing tanks. p. 228.

JEMNA MECHANIKA A OPTIKA. (Ministerstvo vseobecniho strojirenstvi Praha, Czechoslovakia.
Vol. 4, no. 7, July 1959.

Monthly List of East European Accessions (EEAI) LC Vol. 8, no. 11, Nov. 1959
Uncl.

KOLUCH, J., inz.; OBADALEK, J., inz.

Piece production of moldings of polyethylene and other plastic materials. Jemna mech opt 5 no.7:220-224 Jl '60.

1. Ustav pro vyzkum optiky a jemna mechaniky, Prerov.

5.3700

26280
S/074/61/030/008/001/002
B117/B226

AUTHORS: Obadashyan, G. V., Ponomarenko, V. A., and Petrov, A. D.

TITLE: Silicofluoro-organic compounds

PERIODICAL: Uspekhi khimii, v. 30, no. 8, 1961, 941 - 981

TEXT: The authors criticized the papers on the production of organic silicon fluorides. The following problems are discussed with respect to the physical properties of these compounds: Energy, length, and oscillation frequency of the Si-F bonds, chemical displacement in the spectra of nuclear magnetic resonance, refraction of the Si-F bond, the dipole moments of silicofluoro-organic compounds, and complex compounds of silicon fluorides. Silicofluoro-organic compounds, which contain fluorine atoms bound to silicon, can be synthesized by various methods. (a) replacement of halogens of the Si-X bond by F (X = Cl, Br, I); (b) replacement of oxygen of the Si-O bond by F; (c) replacement of nitrogen of the Si-N bond by F; (d) splitting of the Si-C bond, with formation of the Si-F bond; (e) replacement of hydrogen of the Si-H bond by F; (f) splitting of the Si-Si bond with formation of the Si-F bond. All known reactions of silicon fluorides

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Silicofluoro-organic ...

can be classified according to the following principal types: Replacement of fluorine of the Si-F bond by (a) the elements of the IV-th group; (b) the elements of the V-th group; (c) the elements of the VI-th group; (d) the elements of the VII-th group and hydrogen; (e) reactions, in which the Si-F bond remains unchanged. It can be concluded from the chemical reactions of organic and inorganic silicon fluorides that as compared to other halogens, the silicon bound to fluorine shows a number of specific features corresponding to the physical peculiarities of the Si-F bond. A considerable number of silicofluoro-organic compounds with fluorine atoms bound to silicon have hitherto been obtained. Although their physical and chemical properties have been investigated to a certain degree, they are almost not practically applied for technical purposes. Organosilicon compounds containing fluorine atoms in organic radicals seem to be more promising in this respect. At present, the following principal methods of producing these compounds are available: (a) elemental-organic method; (b) replacement of hydrogen of the Si-H bond by organic radicals; (c) reaction according to Svarts; (d) direct synthesis; (e) reactions of alkenyl silanes, and (f) all other reactions. The reactions of silicofluoro-organic com-

Silicofluoro-organic ...

pounds containing fluorine atoms in organic radicals can be classified as follows: (a) Reactions in which the Si-C bond is split; (b) effect of acids and alkalis upon fluorinecontaining polysiloxanes; (c) reactions of silicofluoro-organic hydrides; (d) reactions of silicofluoro-organic halides. In the last ten years, the development of the chemistry of silicofluoro-organic compounds has been essentially governed by the requirements of practical purposes. This becomes evident from numerous patents. It is proposed to produce heat-resistant rubbers, vulcanized rubbers, lubricants, hydraulic liquids, dielectrics, and electric insulating materials, insecticides and herbicides on the basis of fluoropolyorganosiloxanes. Table 4 gives the physical properties of all silicofluoro-organic compounds known at present. The following authors are mentioned: V. A. Ponomarenko, Yu. P. Yegorov, M. G. Voronkov, G. V. Medoks, N. Z. Kotelkov, V. S. Chugunov, A. D. Snegova, A. Ya. Yakubovich, V. A. Ginsburg, I. L. Knunyants, B. A. Sokolov, V. G. Cherkayev, A. D. Petrov, G. V. Odabashyan, N. A. Zadorozhnyy, L. D. Shchukovskaya, V. F. Mironov, V. V. Pisarenko, G. V. Motsarev, A. Ya. Yakubovich, and B. N. Dolgov. There are 4 Tables and 254 references: 44 Soviet and 210 non-Soviet. The three most recent references to English-language publications read as follows: G. M. Konkle, Rubber Age, 84, No 16,

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975 (1959); H. H. Anderson, T. C. Hager, J. Amer. Chem. Soc. 81, 1584 (1959); O. W. Steward, O. R. Pierce, J. Amer. Chem. Soc., 81, 1983 (1959).

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo AN SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy AS USSR)

Table 4: Physical properties of silicofluoro-organic compounds. Legend: (1) gross formula; (2) structural formula; (3) boiling point, °C; (4) melting point, °C; (5) references.

N. OBADOVIC

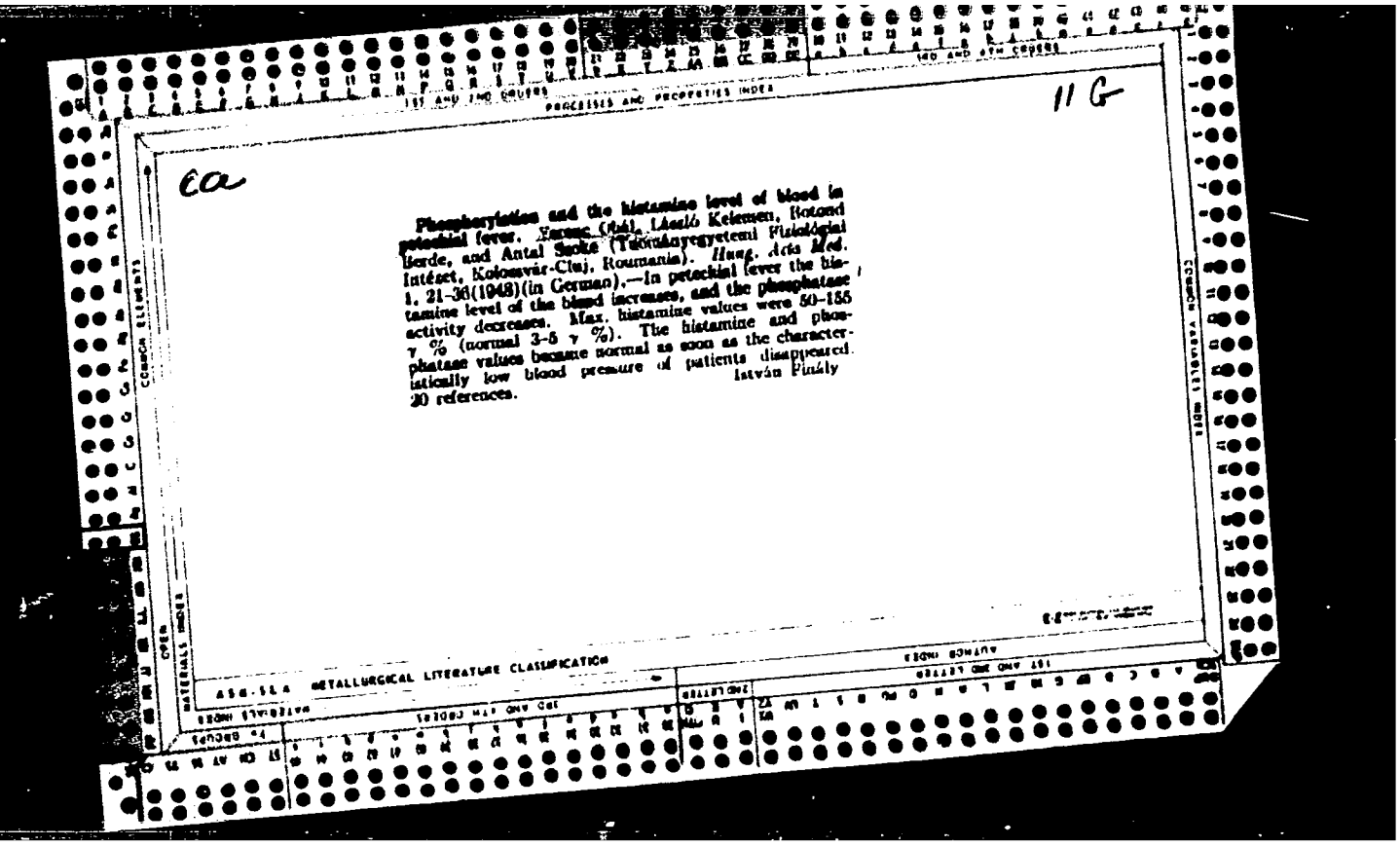
"The Approximate Deviation of the Flow Leaving the Runner of Hydraulic Turbines. p. 7." (BULLETIN, Vol. 9, No. 3, 1952. Beograd, Yugoslavia)

SO: Monthly List of East European Accessions, L.C., Vol. 2, No. 11, Nov.1953, Uncl.

FREY,T.; (Budapesht); OBADOVICH, Y.D. [Obadovics, J. Gy.] (Miskolc)

Some theoretical quastions of the Eigenvalue problems related to the systems of differential equations. Acta mat Hung 15 no.1/2:1-28 '64

1. Vychislitel'nyy TSentr Vengerskoy Akademii Nauk, Budapesht i Politekhnicheskiy Institut tyazheloy promyshlennosti, Kafedra po matematike, Mishkol'ts. Predstavlen L.Kalmarom.



11 G

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Phosphorylation and the histamine level of blood in petechial fever. Ferenc (Mrs.) László Kelemen, Botond Berde, and Antal Skoda (Tudományegyetemi Fiziológiai Intézet, Kolozsvár-Cluj, Roumania). *Hung. Acta Med.* 1, 21-36(1948)(in German).—In petechial fever the histamine level of the blood increases, and the phosphatase activity decreases. Max. histamine values were 50–155 γ % (normal 3-5 γ %). The histamine and phosphatase values became normal as soon as the characteristically low blood pressure of patients disappeared. István Pintály
20 references.

C. A.

116

Effect of exanthematous typhus on phosphatase of the organism and histamine level of the blood Ferenc Obál, László Kelemen, Botond Berde, and Antal Szoke (Bolyai Tudományegyetem Általanos Kisérleti es Kortani Intézet, Marosvasárhely, Rumania). *Magyar Belorvosi Arch.* 1, 137–48 (1948).—In 15 persons suffering from exanthematous typhus the histamine content of blood was 100–150 γ % compared to 4 γ % of normal persons. The increase of histamine developed in the feverous period and simultaneously a significant decrease of blood pressure and phosphatase activity were observed. These symptoms gradually disappeared parallel to the recovery. 30 references.
István Pinaly

OBAL F.
(1855)

A typhus exanthematicus hatasa a szervezet phosphorisalasara es a ver histamintukrere
Influence of typhus fever on the phosphorylation processes and on the histamine level of the blood Magyar Belorvosi Archivum 1948, 1/3 (137-148) Graphs 6 Tables 1

The histamine content of the blood of patients with typhus exanthematicus increases greatly (from the normal values 3-5 ug. % to 100-150 ug. %) especially during the continued fever period, while the phosphatase activity of the organism decreases. The adrenaline sensibility remains unchanged. The decrease of the blood pressure--characteristic in this decrease--ceases with the normalization of the histamine and phosphorylation values.

Fabinyi - Budapest

SO: Excerpta Medica, Vol. 11, No. 4, Sect. 11 - April 1949

CA

117

The action of choline and derivatives on the movements of the intestinal villi. G. Ludány, E. Obál, and A. Sántha Univ., Kolozsvár, Rumania). *Arch. intern. pharmacodynamie* 84, 328–36(1950).—Local application of 1:500,000 choline to the mucosa of chloralosed dogs starved for 24 hrs. increased the movements of the villi. Tone and capillaries were not affected unless 1:100,000 was used. 1:1,000,000 acetylcholine and 1:500,000 carbaminoylcholine acted similarly. Intraarterial acetylcholine (1 γ %) and choline (10 γ %) also increased the activity. Previous treatment with atropine prevented the effects. M. L. C. Bernheim

1951

CA

11-1-

Histamine content of spleen blood. G. Ludány, F. Obál, J. Balogh, and T. Szántó (Univ. Budapest, Hung.). *Acta physiol. pharmacodynamica* 89, 15–20(1952).—Stagnant depot blood from the spleen in dogs contained an av. 22.7 γ and circulating blood 4.3 γ % histamine. M. L. C. B.

OBAL, FERENCNE, dr.

SZENTKIRÁLYI, Istvan, dr.; OBAL, Ferencne, dr.

Effect of honey on the weight increase in premature infants. Gyermekgyogyaszat 5 no.7:203-209 July 54.

1. A Marosvasarhelyi Orvostudomanyi es Gyogyszereszeti Felsooktatasi Intezet Csecsemo-es Gyermek-klinikajanak (igazgato: Szentkiralyi Istvan dr es Puskas Gyorgy dr. egyetemi eloado tanarok), valamint Szuleszeti es Nogyogyogyaszati Klinikajanak (igazgato: Lorinc Erno Andras dr., egyetemi tanar) kozlemenye.

(BODY WEIGHT, in inf. & child
premature, eff. of honey)
(HONEY, eff.
on weight in premature inf.)
(INFANT, PREMATURE
weight, eff. of honey)

OBAL, Ferenc, dr., az orvostudomanyok kandidatusa

The role of the nervous system in the response to drugs and poisons. Ideg. szemle 7 no.3:39-43 June 54.

1. A Marosvasarhelyi Orvostudomanyi es Gyogyszereszeti Felsooktatasi Intezet Elettani, Korelettani, valamint Gyogyszertani Laboratoriuma (igazgato: Obal Ferenc dr. egyetemi tana) koslemenye.

(NERVOUS SYSTEM, physiology,
role in response to drugs & poisons)
(POISONS, effects,
response, role of nervous system)

RUMANIA/Pharmacology and Toxicology - General Problems. /-1

Abs Jour : Ref Zhur - Biol., No 21, 1.50, 98380

Author : Olal. F., Feszt, Gy., [illegible], L., Kelemen, A., Fall, [illegible], Ender, P.

Inst : -

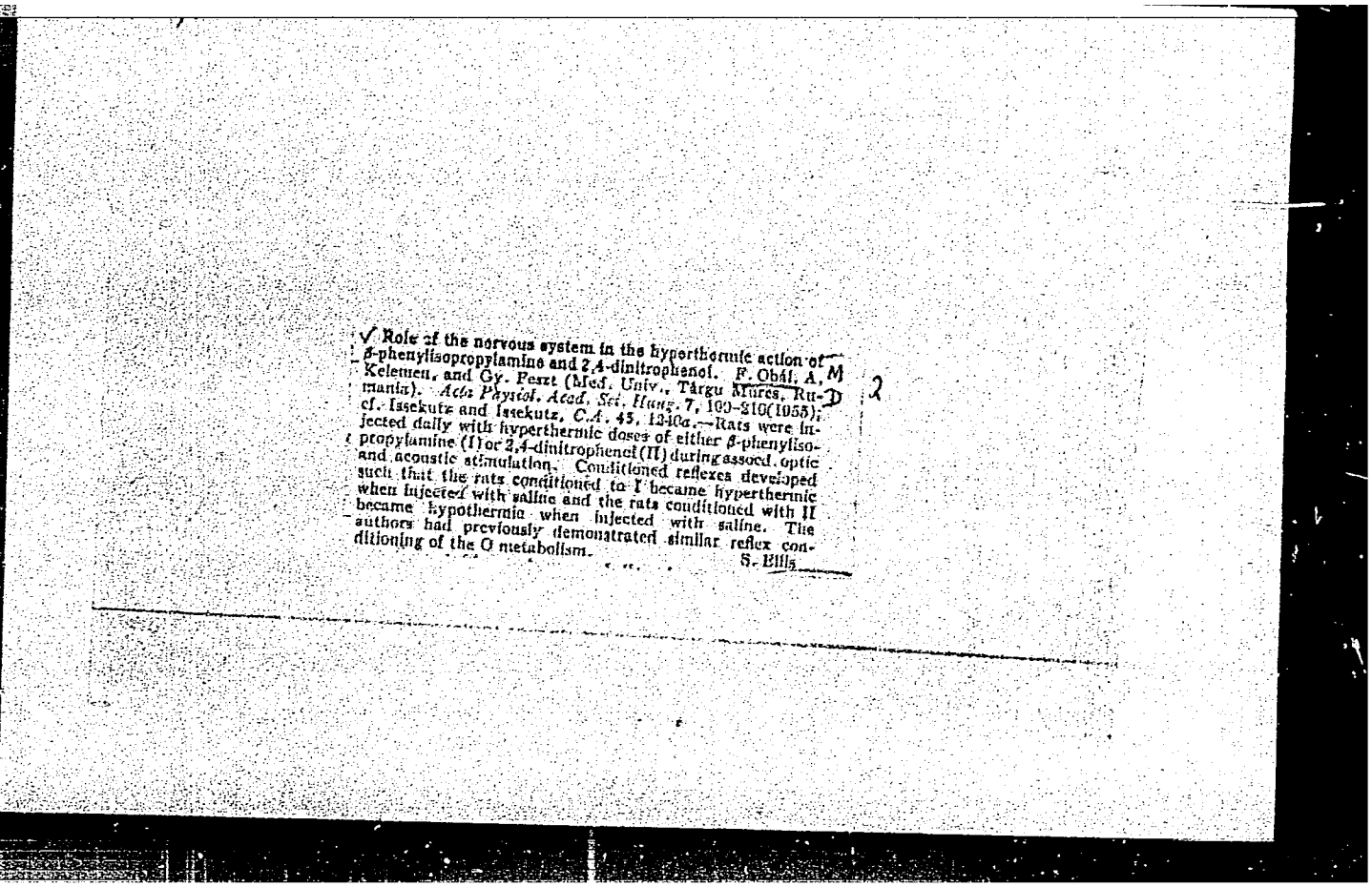
Title : Investigation of the [illegible] a Number of Medicinal Preparations by Method of Conditioned Reflexes.

Orig Pub : Rev. Med. (RPR), 1955, 1, [illegible], 19-25.

Abstract : No abstract.

Card 1/1

- 3 -



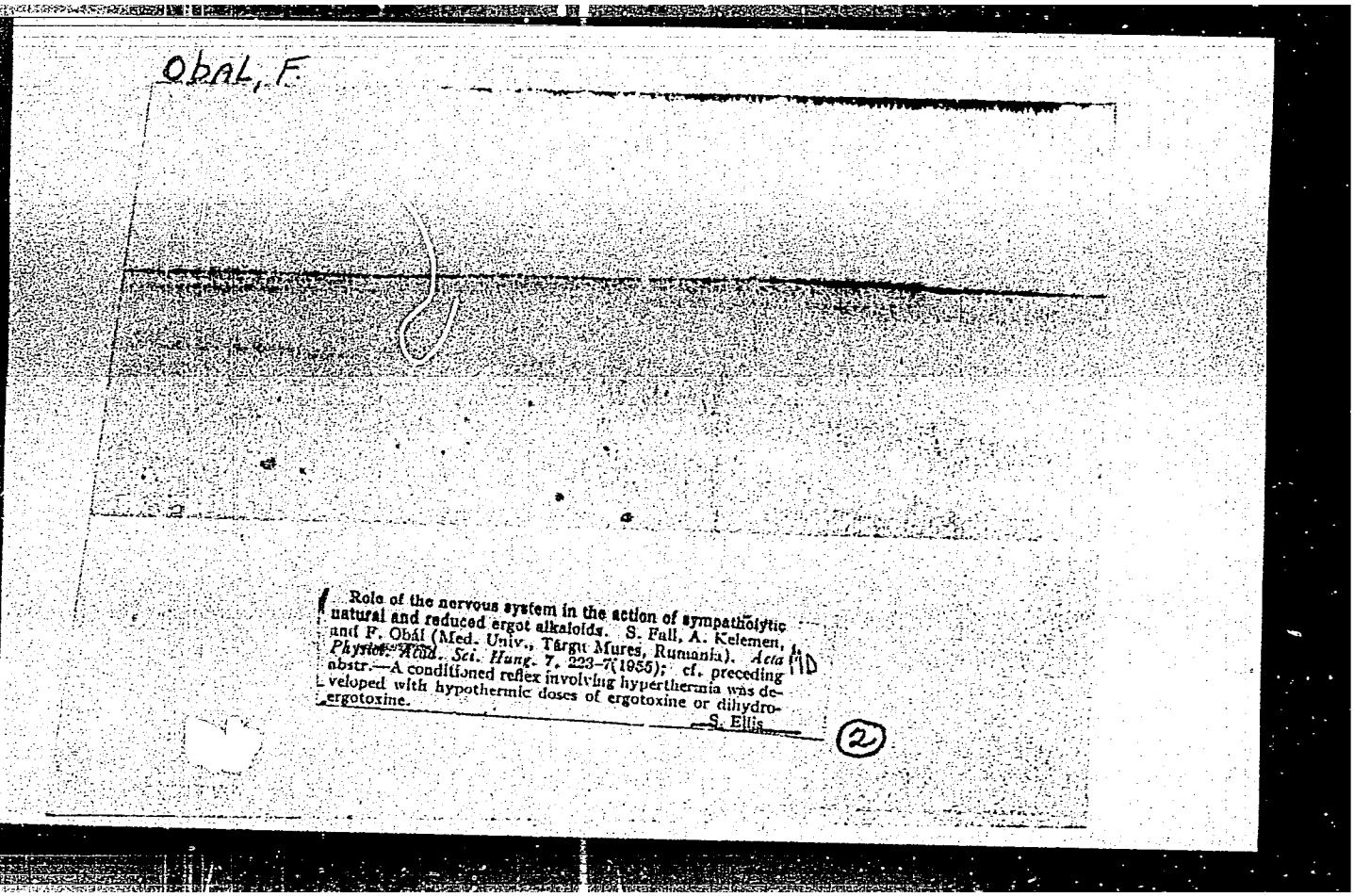
√ Role of the nervous system in the hyperthermic action of β-phenylisopropylamine and 2,4-dinitrophenol. F. Obál, A. Kelemen, and Gy. Peart (Med. Univ., Târgu Mureș, Rumania). *Acta Physiol. Acad. Sci. Hung.* 7, 199–210(1955); cf. Issekutz and Issekutz, *C.A.* 45, 1240a.—Rats were injected daily with hyperthermic doses of either β-phenylisopropylamine (I) or 2,4-dinitrophenol (II) during assocd. optic and acoustic stimulation. Conditioned reflexes developed such that the rats conditioned to I became hyperthermic when injected with saline and the rats conditioned with II became hypothermic when injected with saline. The authors had previously demonstrated similar reflex conditioning of the O metabolism.

S. Ellis

OBAL, F.

Role of the nervous system in the hypothermic action of pentamethylenetetrazole. F. Obál, M. Mózes, A. Kelemen, and S. Full (Med. Univ., Tîrgu Mureş, Rumania). *Acta Physiol. Acad. Sci. Hung.* 7, 211–21(1955); cf. *C.A.* 49, 13301d.—Pentamethylenetetrazole (I) caused hypothermia in rats and guinea pigs. Low doses of I caused a greater hyperthermia in the guinea pig. The conditioned reflex which was developed with hypothermic doses of I was a rise in temp.

—S. Ellis



Obal, F.

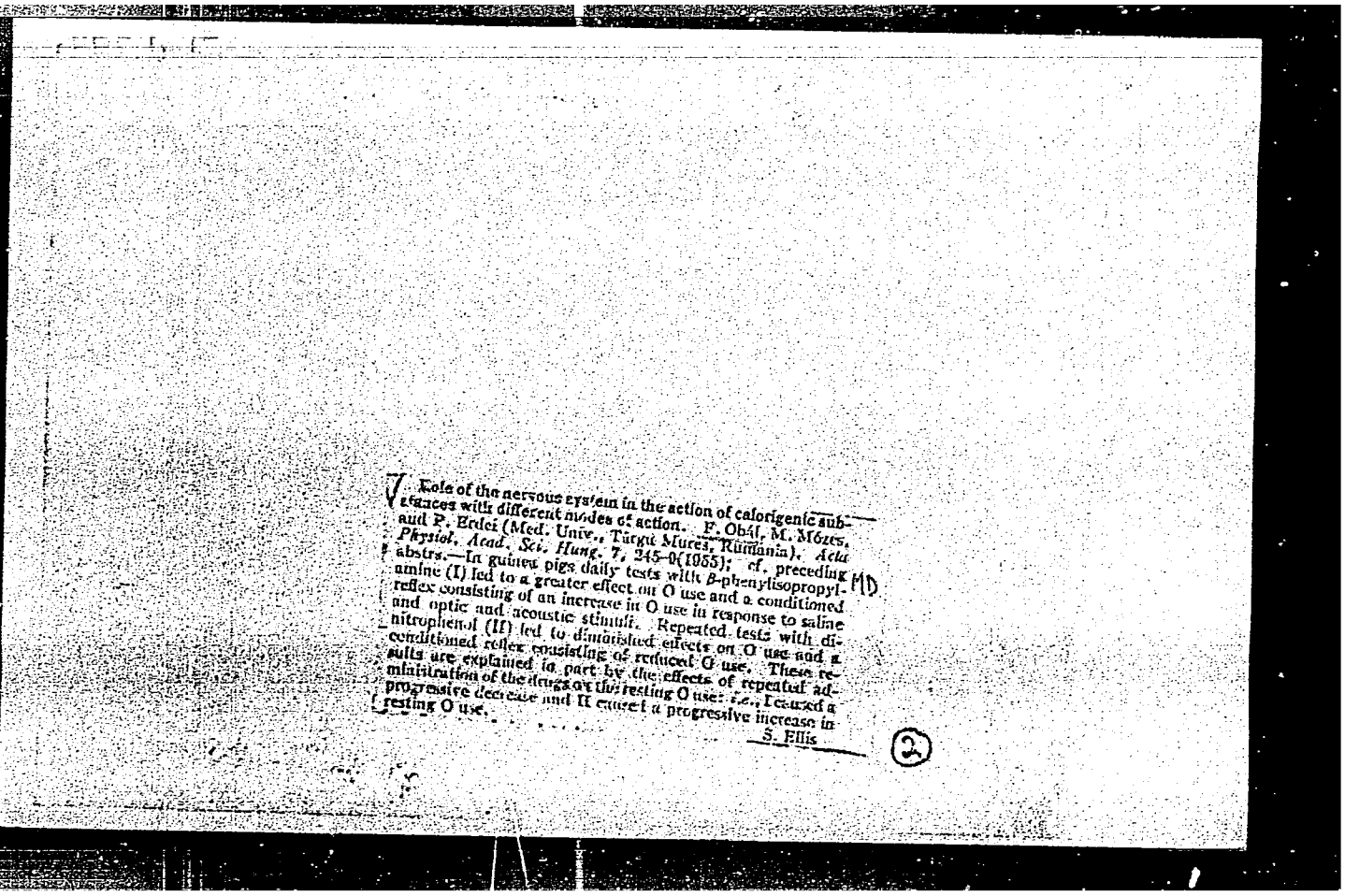
Role of the nervous system in the action of sympatholytic natural and reduced ergot alkaloids. S. Fall, A. Kelemen, and F. Obál (Med. Univ., Târgu Mures, Rumania). *Acta Physiol. Acad. Sci. Hung.* 7, 223–7(1955); cf. preceding abstr.—A conditioned reflex involving hyperthermia was developed with hypothermic doses of ergotoxine or dihydroergotoxine. —S. Ellis

(2)

OBAL, F.

(2)

Role of the nervous system in the hypothermic action of procaine. A. Kelemen, Gy. Feszt, and F. Obál (Med. Univ., Tárgu Mures, Rumania). *Acta Physiol. Acad. Sci. Hung.* 7, 229–44(1955); cf. preceding abstrs.—In guinea pigs and rats procaine caused hypothermia. The conditioned reflex was hypothermia. With small daily doses the conditioning led to a reduced hypothermia or even hyperthermia in response to procaine. S. Ellis



V. Role of the nervous system in the action of calorigenic substances with different modes of action. F. Obál, M. Mózes, and P. Erdei (Med. Univ., Tirgu Mures, Rumania). *Acta Physiol. Acad. Sci. Hung.* 7, 245–9(1955); cf. preceding abstrs.—In guinea pigs daily tests with β-phenylisopropylamine (I) led to a greater effect on O use and a conditioned reflex consisting of an increase in O use in response to saline and optic and acoustic stimuli. Repeated tests with dinitrophenol (II) led to diminished effects on O use and a conditioned reflex consisting of reduced O use. These results are explained in part by the effects of repeated administration of the drugs on the resting O use: I caused a progressive decrease and II caused a progressive increase in resting O use.

S. Ellis

MD

(2)

Obal, F.

7039. Occurrence of SH_2 poisoning and its mode of action on muscular function. F. Obál and E. Incze *Acta physiol. Acad. Sci. hung.*, 1955, 8, 409—423 (Physiol. Inst., Med. Univ., Târgu-Mureș, Roumania).—The gastrocnemius-sciatic prep. having been bathed in a Ringer's solution containing 8 to 0·05 mg. % H_2S for 10 to 30 min. develops 10 to 69% less work until complete fatigue than its twin control. The relaxation of a twitch becomes longer in the course of rhythmic stimulations and the regeneration during the rest periods is less complete in the poisoned muscle. The height of the tetanic plateau is 30—70% smaller than that of the normal and the muscle can maintain the tetanus for a shorter time. (German)

A. B. L. Beznák.

OBAL, F.; KELEMEN, L.; DOZSI, Z.; RAVASZ, J.

Cerebrospinal fluid in typhus. Acta med.hung. 7 no.1-2:135-145 1955.

1. Klinik fur Infektionskrankheiten und Pathophysiologisches Institut der Medizinischen und Pharmaceutischen Hochschule, Marosvasarhely (Targu-Mures) Rumanien.
(TYPHUS, cerebrospinal fluid in.)
(CEREBROSPINAL FLUID, in various diseases, typhus)

HADNAGY, Csaba; OBAL, Ferenc; DOCZY, Pal; SZABO, Istvan; MALNASI, Geza

Effect of substances influencing India ink storage of the reticuloendothelial system on antibody formation. Kiserletes orvostud. 8 no.4:345-350 July 56.

1. Marosvasarhelyi Vertarolo es Veratomleszto Kozpont es a Marosvasarhelyi Orvostudomanyi es Gyogyszereszeti Felsooktatasi Intezet Elettani Laboratoriuma.

(RETICULOENDOTHELIAL SYSTEM, physiol.
colloidopexy, eff. of various substances influencing colloidopexy on antibody form. in exper. animals (Hun))
(ANTIGENS AND ANTIBODIES
antibody form., eff. of various substances influencing colloidopexy in reticuloendothelial system (Hun))

EXCERPTA MEDICA Sec.9 Vol.11/5 Surgery May 1957

OBÁL F.

2323. OBÁL F., NAGY K., ZOLTÁN L. and CSALAY L. Wissenschaftl. Landesinst. für Neurochir., Budapest; Pathophysiol. Inst., Univ. Budapest. Über die Wirkung des Pendiomids auf die intrakranielle Druckerhohung hypoxischer Genese. The effect of pendiomid on the increased intracranial pressure of hypoxic pathogenesis ZBL.CHIR. 1956, 81/23 (918-923) Graphs 7

Experiments in cats showed that the controlled hypotension induced with pendiomid neither decreases nor increases the CSF pressure. When the blood pressure decreases rapidly, the passive hyperaemia of the internal skull may lead to a transient increase of CSF pressure. Controlled hypotension is capable of preventing the blood pressure reaction following hypoxia, but it can neither prevent nor remedy the increase of intracranial pressure or the occurrence of cerebral oedema. The vasomotor regulation being inhibited with pendiomid, the CSF pressure may follow passively the oscillations of the blood pressure. Controlled hypotension of about 70-80 mm. Hg does not influence the EEG findings, although sudden and very pronounced hypotonia may lead to transient abnormalities of the electrical activity of the cortex. The stronger the inhibition of the blood (pressure) regulation, the more marked and lasting the effect of the hypoxia on the EEG. It is not only the first dose of pendiomid which decreases the blood pressure, as in the case of hexamethonium; successive doses cause an increasingly marked hypotension.

(IX, 8)

OBAL, F.

KELEMEN, L.; OBAL, F.; MOZES, Magda

Effect of measles on carbohydrate metabolism. Med. int., Bucur. 9 no.11:1661-1665 Nov 57.

1. Clinica de bolt infectioase si Catedra de fiziopatologie Tg. Mures.
(MEASLES, metabolism
carbohydrates)
(CARBOHYDRATES, metabolism
in measles)

KATONA, Ferenc, Dr.; NAGY, Klara, P.; OBAL, Ferenc, Dr.

New types of deconnection in neurosurgical operations. Magy. sebeszet 12 no.1:88-96 Mar 59.

1. Az Orszagos Idegsebeszeti Tudomanyos Intezet Kozlemenye Igazgato: Zoltan Laszlo Dr.

(HIBERNATION, ARTIFICIAL
in brain surg. (Hun))
(BRAIN, surg.
artif. hibernation in (Hun))

JUHASZ, Pal; OBAL, Ferenc

Electroencephalographic examinations in hemispherectomized patients. Ideg. szemle 12 no.3:73-79 Mar 59.

1. A budapesti Orszagos Idegsebeszeti Tudomanyos Intezet, a debreceni, Ideg- es Elmegyo- gyaszati Klinika es a szegedi Elettani Intezet Kozlemenye.

(BRAIN, surg.
hemispherectomy, eff. on EEG (Hun))
(ELECTROENCEPHALOGRAPHY
eff. of hemispherectomy (Hun))

SZORADY, Istvan; VICSAY, Margit; OBAL, Ferenc

Effect of pantothenic acid on the sensitivity of the intestine to acetylcholine in rats. Kiserletes Orvostudomany 12 no.1: 75-79 F '60.

1. Szegedi Orvostudominyi Egyetem Gyermekklinikaja es Elettani Intezete.

(PANTOTHENIC ACID pharmacol)
(ACETYLCHOLINE pharmacol)
(INTESTINES pharmacol)

DOMBRADI, G.A.; KRIZSA, F.; JANCSO, T.; OBAL, F.

Analysis of intestinal absorption changes caused by posterior pituitary extracts in animals after the preliminary treatment with cortical hormones. Acta physiol.hung. 18 no.3:203-209 '60.

1. Physiologisches Institut der Medizinischen Universitat, Szeged.
(PITUITARY GLAND POSTERIOR hormones)
(ADRENAL CORTEX HORMONES pharmacol)
(INTESTINES physiol)
(WATER metab)

OBAL, Ferenc, Dr.

Nerve supplies in transmission of sensations in the skin. Borgyogy. vener.szemle 36 no.2-3:103-109 Mr-My '60.

(SKIN innerv)

OBAL, Ferenc

Electroencephalography and its most recent achievements.
Elovilag 6 no.2:34-39 Mr-Ap '61.

SZORADY, Istvan; SZ.-ne VICSAY, Margit; OBAL, Ferenc; PUSZTAI, Rozalia; TOTH, Janos

Data on the effect of pantothenic acid on the isolated intestine. Kiserl. orvostud. 14 no.3:281-286 Je '62.

1. Szegedi Orvostudomanyi Egyetem Elettani Intezete es Gyermekklinikaja.
(PANTOTHENIC ACID pharmacol) (INTESTINES pharmacol)

HUNGARY

OBAL, Ferenc, MADARASZ, Istvan, SOLTAN ORI, Tamas, SZANDA, Endre, FOLLI, Mihaly; Medical University, 2nd Clinic of Internal Medicine, Institute of Physiology and Clinic of Neurology and Psychiatry (Orvostudomanyi Egyetem II. s. . Belklinikaja, Elettani Intezete es Ideg-Elmekortani klinikaja), Szeged.

"Effect of Cerebral Lymph Node Insufficiency on the Disposition toward Cardiazole Induced Spasms."

Budapest, Kiserletes Orvostudomany, Vol 15, No 2, Apr 63, pp 196-199.

Abstract: [Authors' Hungarian summary] Lymphedema, following after the ligation of the lymph nodes and vessels of the neck, results in an enhanced disposition toward cardiazole-induced spasms. Of 4 references, one is Hungarian, the rest is Western.

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HUNGARY

OSAL, F., and VICSAY, M., of the Institute of Physiology, Medical University, Szeged [Original version not given].

"The Role of the Nervous System in the Adaptation of Oxygen Consumption to Hypoxia"

Budapest, Acta Physiologica Academiae Scientiarum Hungaricae, Supplement to Vol 22, 1963; p 18.

Abstract [Authors' English summary, modified]: In rat experiments, in air containing 8 to 10 percent O_2 the oxygen consumption of the rat drops; on reverting to air, the hypoxic reaction does not take place. In the presence of indifferent stimulus, there is an immediate increase in O_2 consumption. The organism adapts itself rapidly to repeated hypoxias combined with indifferent stimuli. The differences in reaction of the different animal species and of the individual animals are determined by the phylo- and ontogenetical development of the nervous system, as well as by the acquired individual reactivity.

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FOLDI,M.; CSANDA, E.; TOTH,K.; OBAL,F.; MADARASZ, I.; ROMHANYI, Gy.; VARGA, L.; WAGNER,A.

Melkersson-Rosenthal-Miescher syndrome. Orv. hetil. 105 no.6: 245-250 9 F'64.

1. Szegedi Orvostudomanyi Egyetem, II. Belklinika, II. Fogaszati Klinika, Elettani Intezet es Ideg-elmekortani Klinika; es Pecsi Orvostudomanyi Egyetem, Korbonctani Intezet.

SZABO, L.; DURKO, Iren; NAGY, Maria, E.; OBAL, F.

Biochemical and EEG investigation in a pair of monozygotic twins suffering from phenylketonuria. Acta paediat. 6 n.s.: 227-244 '65.

1. Kinderklinik, Nervenklinik und Physiologisches Institut der Medizinischen Universitat Szeged. Submitted February 20, 1965.

L 15518-66

ACC NR: AT6007370 SOURCE CODE: HU/2505/65/026/00X/0006/0006

23
B+1

AUTHOR: Madarasz, I.; Vicsay, Margit; Takacs, O.; Obal, F.

ORG: Institute of Physiology, Medical University of Szeged (Szegedi Orvostudomanyi Egyetem, Elettani Intezet)

TITLE: Reflex responses to hypoxia in young animals. [This paper was presented at the 29th Meeting of the Hungarian Physiological Society held in Szeged from 2 to 4 July 1964]

SOURCE: Academia scientiarum hungaricae. Acta physiologica, v. 26, Supplement, 1965, 6

TOPIC TAGS: hypoxia, rat, dog, conditioned reflex, biologic metabolism, nervous system

ABSTRACT: In a continuation of earlier experiments, the changes in the reduction of the metabolic rate and the conditioned reflex response to hypoxia have been studied in rats and dogs 0-72 days old. It was found that up to about 20 days of age, the animals respond to repeated episodes of hypoxia with almost no change in O_2 consumption and the conditioned reflex manifests itself with a decrease in O_2, i.e. the change is in the same direction as in the case of the unconditioned response. At

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L 15518-66
ACC NR: AT6007370

around 20 days, O_2 consumption oscillates in response to the conditioned stimulus, it is often biphasic, a decrease followed by an increase. After 20 days, the opposite conditioned reaction becomes predominant consisting in an increase in O_2 consumption and it becomes more marked with advancing age. The results led to the conclusion that, parallel with the ontogenetic development of the nervous system, the vegetative balance of the organism is ensured to an increasing extent by a higher, corrective central nervous regulation. [JPRS]

SUB CODE: 06, 05 / SUBM DATE: none

Card 2/2

OBAL, F.; VICSAY, Margit; MADARASZ, I.

Role of a central nervous mechanism in the acquired tolerance to the temperature decreasing effect of histamine. Acta physiol. acad. sci. Hung. 28 no.1:65-76 '65.

1. Institute of Physiology, University Medical School, Szeged. Submitted August 31, 1964.

MADARASZ, I.; OBAL, F.; VICSAY, Margit; TAKACS, O.

Analysis of the vegetative and EEG responses to hypoxia. Acta physiol. acad. sci. Hung. 28 no.1 77-88 '65.

1. Institute of Physiology, University Medical School, Szeged.
Submitted September 4, 1964.

L 15446-66

ACC NR: AT6007392 SOURCE CODE: HU/2505/65/026/00X/0019/0019

AUTHOR: Zoltan, O. T.; Thuranszky, K.; Madarasz, I.; Jaki, Agnes; Obal, F.; 27
Foldi, M.

B+1

ORG: Institute of Physiology, Medical University of Szeged (Szegedi Orvostudomanyi Egyetem, Elettani Intezet)

TITLE: Influence of pantothenic acid and pyridoxine on the effects of experimental cerebral lymphedema [This paper was presented at the 29th Meeting of the Hungarian Physiological Society held in Szeged from 2 to 4 July 1964]

SOURCE: Academia scientiarum hungaricae. Acta physiologica, v. 26, Supplement, 1965, 19 .

TOPIC TAGS: vitamin, EEG, cerebrum, neurophysiology

ABSTRACT: It has been found that the various effects of experimental cerebral lymphedema, such as changes in the EEG, susceptibility to convulsions, barbiturate sensitivity, glycolysis, etc., can be influenced by treatment with pantothenic acid and pyridoxine. [JPRS]

SUB CODE: 06 / SUBM DATE: none

Card 1/1

L 33793-66 RO

ACC NR: AT6025181 SOURCE CODE: HU/2505/65/028/001/0065/0076

AUTHOR: Obal, Ferenc (Szeged); Vicsay, Margit--Vichai, M. (Szeged); Madarasz, Istvan --Madaras, I. (Szeged)

ORG: Institute of Physiology, Medical University of Szeged (Szegedi Orvostudomanyi Egyetem, Elettani Intezet)

TITLE: Role of a central nervous mechanism in the acquired tolerance to the temperature-decreasing effect of histamine [6] /Presented at the Hungarian Physiological Society Symposium on the "Early Manifestations of Conditioning" held in 1963/

SOURCE: Academia scientiarum hungaricae. Acta physiologica, v. 28, no. 1, 1965, 65-76

TOPIC TAGS: pharmocology, hypothermia, central nervous system

ABSTRACT: When histamine is administered s.c. three times in succession at 2-3 hour intervals, rapid acquisition of tolerance to its temperature-decreasing effect occurs in the rat. On subsequent treatment with physiological saline, the body temperature does not change or is only slightly elevated. Following this, histamine causes again a steep fall in body temperature. A similar reaction can be seen in the decrease in oxygen consumption, caused by histamine. The tolerance to histamine is not suspended by saline if the latter is administered through an implanted intraperitoneal cannula. The hypothermic effect of histamine is significantly prolonged and the development of tolerance to it is delayed if the injection is

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L 33793-66

ACC NR: AT6025182

made in a denervated skin area where the stimulus complex which accompanies histamine administration is partly absent. The phenomenon of rapid acquisition of histamine tolerance is believed to be akin to the mechanism of habituation. The compensatory nervous activity, reinforced by the repeated injections which are accompanied by the same complex of stimuli, reduces the effect of the consecutive doses as is customary with stimuli which have a peripheral site of action, according to earlier investigations. An injection of the indifferent, saline solution may eventually bring this nervous mechanism of opposing effect to the surface, although it tends to extinguish it; this extinction manifests itself in a sudden decrease in histamine tolerance with a reappearance of the response to histamine. The temperature-decreasing effect of carbachol persists after the development of histamine tolerance since the effect of carbachol is maintained through reflexes the result of which is similar to that elicited by stimuli of the central site of action. The hypothermic response to repeated doses of carbachol does not weaken and the conditioned reflex evoked by the saline solution also effects a decrease in body temperature. The development of temporary connections manifests itself in an early decrease of the effect, in the case of histamine, and in an increase of the effect, in the case of carbachol. This difference is characteristic of the peripheral, efferent-side, or central, afferent-side site of action of the stimulus. Orig. art. has: 10 figures. /Orig. art. in Eng./ /JPRS: 33,502/

SUB CODE: 06 / SUBM DATE: 31Aug64 / ORIG REF: 008 / OTH REF: 015
SOV REF: 001

Card 2/2

L 9380-66 EWT(1)/FS(v)-3 DD

ACC NR: AT5028093 SOURCE CODE: HU/2505/65/028/001/0077/0088

37

AUTHOR: Madarasz, I.; Obal, F.; Vicsay, M.; Takacs, O.

ORG: Institute of Physiology, University Medical School, Szeged

B+1

TITLE: Analysis of the vegetative and EEG responses to hypoxia

SOURCE: Academia scientiarum hungaricae. Acta physiologica, v. 28, no. 1, 1965, 77-88

TOPIC TAGS: hypoxia, EEG, conditioned reflex, respiratory reaction, rabbit

ABSTRACT: Eight rabbits weighing between 5 and 6 kg each were subjected to inhalation of air containing 6 to 8% oxygen for the purpose of clarifying how the early bioelectrical manifestations accompanying the development of conditioned reflexes are altered by the vegetative changes elicited by hypoxia. Bioelectrical activity was recorded with embedded electrodes, using leads from the cerebral cortex, the hippocampus, and occasionally from other subcortical structures. Respiration was registered by means of thermistors. The animals were conditioned to a visual stimulus during exposure to low-oxygen (6% to 8%) atmospheres. The typical sinusoidal rhythm appears in the hippocampus during the first reinforcement, and the respiration curve becomes flat. During subsequent reinforcements, the hippocampus shows a variegated electrical pattern, with slow (5 to 8 cps) waves alternating with high, fast waves. When the conditioned reflex is evoked, the slow sinusoidal pattern recurs in the hippocampus, fol-

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ACC NR: AT5028093

lowed by similar activity in the hypothalamic and the occipital leads. Respiration increases in response to the conditioned visual stimulation, the onset of increased oxygen consumption being accompanied by appearance of 30-cps frontal lead activity. The slow cortical waves observable in the course of subsequent hypoxic periods appear to be the result of conditioning. The first 100 sec after elicitation of the reflex are marked by bursts of high, fast waves interspersed with the basal activity. These bursts (also thought to result from conditioning) consist of particularly conspicuous electrical activities of the hypothalamus and the hippocampus. The characteristic hippocampic sinusoidal waves appear for only a few seconds after presentation of the conditioned stimulus. After that, desynchronization sets in and respiration shows conditioned changes. The sudden increase in metabolic rate is accompanied by an orientation reaction, with motor, respiratory, and EEG signs. Orig. art. has: 13 figures. [BM]

SUB CODE: 06/ SUBM DATE: 04Sep64/ OSOV REF: 001/ OTH REF: 013/ ATD PRESS: 4159

Card 2/2

compared with animals that were not warm[illegible]
oxygen consumption. Influence of the age of [illegible]
the administration of benzedrine and 2,4-alpha-dinitrophenol [illegible]
studied. In the regulation of autonomic functions, [illegible]
countereffect of [illegible]
peripheral and efferent nervous structures. [illegible]
important in maintaining homeostasis. [illegible]
submitted at the "16 Days of Physiology" at Kosice, 20 Sep[illegible]

1/1

HUNGARY

OBAL, Ferenc; Medical University of Szeged, Institute of Physiology (Szegedi Orvostudomanyi Egyetem, Elettani Intezet).

"The Fundamentals of the Central Nervous Control of Vegetative Homeostasis."

Budapest, Acta Physiologica Academiae Scientiarum Hungaricae, Vol XXX, No 1, 1966, pages 15-29.

Abstract: [English article, author's English summary modified] When vegetative homeostasis is upset by hypoxia or by drugs of different site of action, the following statements can be made regarding the control of conditioned reflexes manifested in changes in body temperature and oxygen consumption. a) The effect of a central type of stimulus arising in the highest nervous structures as well as at the receptor, or on the afferent branch, is characterized by the following features: 1) On reinforcement, the effect increases in response to the consecutive doses and no adaptation develops. 2) There is only a quantitative difference between the responses to small and large doses. 3) The effect of the conditioned reflex is identical with the pharmacological effect of the drug. b) The effect of peripheral type stimuli arising at the peripheral effector organs, or anywhere in the efferent branch, is characterized by the following features: 1) In the course of reinforcements, the response weakens and adaptation develops rapidly. 2) There is a qualitative difference between the effects of small and large doses. 3) The effect of the conditioned reflex is a vegetative response and contrasts with the effect of the drug. 26 Eastern European, 14 Western references. [Manuscript received 16 Aug 65.]

1/1

Therapy

HUNGARY

FOLDI, Mihaly, Dr of med. sci., CSANDA, Endre, Cand. of med. sci., CSILLIK, Bertalan, Cand. of med. sci., MADARASZ, Istvan, Cand. of med. sci., OBAL, Ferenc, Cand. of med. sci., ZOLTAN, O., Tamas, JAKI, Agnes; Medical University of Szeged, II. Medical and Neurological-Psychiatric Clinics, and Institutes of Physiology, Anatomy and Biochemistry (Szegedi Orvostudomanyi Egyetem, II. Belgyogyaszati es Ideg-Elmekortani Klinika, es Elettani, Anatomiai es Biokemiai Intezet).

"Prevention of the Symptoms of 'Lymphogenic Encephalopathy' by Means of Panthotenic Acid-Pyridoxine Treatment."

Budapest, A Magyar Tudomanyos Akademia V. Orvosi Tudomanyok Osztalyanak Kozlemenyei, Vol XVII, No 1, 1966, pages 101-120.

Abstract: [Authors' Hungarian summary modified] The experimental syndrome of "lymphogenic encephalopathy" can be produced by cervical lymphatic blockade; it is characterized by well defined neuropathological and functional changes. On the basis of theoretical considerations, the working hypothesis was set up that the symptoms of "lymphogenic encephalopathy" can best be correlated with the absolute and relative absence of coenzyme A and pyridoxal phosphate. For this reason, therapeutic attempts were made using the above vitamins. The hypothesis was confirmed by the experimental results. A statistical evaluation of the results is also reported.

L 13687-66

ACC NR: AT6032343 SOURCE CODE: HU/2505/65/027/001/0007/0019

25
B+1

AUTHOR: Jancso, Tamas; Madarasz, Istvan, Obal, Ferenc

ORG: Institute of Physiology, Medical University of Szeged, Szeged (Szegedi Orvostudomanyi Egyetem, Elettani Intezet)

TITLE: Use of thermistors in studies of blood flow in the tissues 22

SOURCE: Academia scientiarum hungaricae. Acta physiologica, v. 27, no. 1, 1965, 7-19

TOPIC TAGS: thermistor, blood circulation, cerebrum

ABSTRACT: On the basis of model and animal experiments, the most important physical and biological parameters have been discussed which determine the reproducibility of cerebral blood flow measurements with thermistors. Using the Gibbs principle, a difference-circuit thermistor blood flow recording method has been developed by means of which so-called "net" flow curves can be obtained which are not influenced by changes in the temperature of the animal and of the environment. The biological (physiological) conditions of the use of the method in animal experiments have been outlined. Orig. art. has: 8 figures. [Orig. art. in Eng.] [JPRS]

SUB CODE: 06, 09 / SUBM DATE: 03Mar64 / ORIG REF: 002 / OTH REF: 009

LS
Card 1/1

0919 2395

L 45470-66

ACC NR: AT6033359 SOURCE CODE: HU/2505/65/026/01-/0181/0181

AUTHOR: Vicsay, Margit; Obal, F.; Madarasz, I.

ORG: Institute of Physiology, Medical University of Szeged (Szegedi Orvostudomanyi Egyetem, Elettani Intezet)

TITLE: Central nervous mechanism in the adaptation to the body temperature-lowering effect of histamine [Paper presented at the symposium of the Hungarian Physiological Society held in Budapest from 2-3 July 1963]

SOURCE: Academia scientiarum hungaricae. Acta physiologica, v. 26, no. 1-2, 1965, 181

TOPIC TAGS: histamine, rat, central nervous system, pharmacology, conditioned reflex, body temperature, physiology

ABSTRACT: According to literature data, the lowering of body temperature in response to histamine diminishes progressively and the effect disappears completely after 3-4 doses of the drug. At the same time, a similar activity of other compounds will persist unchanged. An enhanced elimination of histamine as a possible explanation of this "tachyphylactic" phenomenon could not be verified experimentally (histaminase, antihistaminase determinations). In a study of the body-temperature-lowering effect of repeated subcutaneous injections of histamine in rats, it has been found that saline injected after the third, almost ineffective histamine dose suspended the adaptation to histamine. Subsequent administration of histamine again caused a marked lowering of body temperature. The phenomenon points to the role of the central nervous system in the development of rapid adaptation to histamine which may involve a mechanism similar to habituation or conditioned reflexes. [Orig. art. in Eng.] [JPRS]

SUB CODE: 06 / SUBM DATE: none

Card 1/1

0920 1581

L 45496-66 SCTB DD

ACC NR: AT6033360 SOURCE CODE: HU/2505/65/026/01-/0182/0182

AUTHOR: Madarsz, I.; Obal, F.; Vicsay, Margit; Takacs, O.

ORG: Institute of Physiology, Medical University of Szeged (Szegedi Orvostudomanyi Egyetem, Elettani Intezet)

TITLE: Autonomic and EEG responses evoked by hypoxia [Paper presented at the symposium of the Hungarian Physiological Society held in Budapest from 2-3 July 1963]

SOURCE: Academia scientiarum hungaricae. Acta physiologica, v. 26, no. 1-2, 1965, 182

TOPIC TAGS: EEG, hypoxia, autonomic nervous system, electrophysiology

ABSTRACT: In different animal species, the conditioned autonomic and EEG responses evoked by indifferent (optic and acoustic) stimuli coupled with inhalation of air with 6-10 per cent oxygen content have been studied by recording the oxygen consumption, body temperature, respiration and electrical activity of the neocortex and of different subcortical structures. The early signs of the autonomic conditioned response and the bioelectrical manifestations associated with it have been analyzed. The autonomic responses were found to be identical with or reciprocal to the effect of the unconditioned, hypoxic stimulus. The EEG patterns were indicative of the conditioned character of both types of autonomic response. [Orig. art. in Eng.] [JPRS]

SUB CODE: 06 / SUBM DATE: none

Card 1/1

0920 1382

P. T. A OBALSKI, Jan

Math. & Natural Sciences

461 531.721 :53.088

Obalski J. Accuracy of the „Prytz" Planimeter.

„O dokładności planimetru Prytza" Przegląd Mechaniczny No 9, 1950, pp 282 - 286, No 10 - 11, 1950, pp 333 - 336, 24 figs

The „Prytz" planimeter is the simplest of integrators for measuring the area of plane surfaces and likely to be of service in cases where a high degree of accuracy is of primary consideration. The author analyses the sources of errors of this planimeter, contingent on its principles of measuring, and substantiates the conditions governing its proper use. He also quotes certain geometric and kinematic conditionences connected with the operation of this planimeter.

OBALSKI, J.

OBALSKI, J. Statistical control of quality, a weapon not yet used in the fight for high quality of production. p. 472.
Vol. 27, no. 11/12, Nov./Dec. 1954.
MECHANIK. Waszawa Poland

SOURCE: East European Accessions List (EEAL) LC Vol. 5, no. 6, June 1956

Category : POLAND/General Problems - Method and Technique of Investigation

Abs Jour : Ref Zhur - Fizika, No 3, 1957, No 5592

Author : Obalski, Jan
Title : Concerning the Kilopond.

Orig Pub : Pomiary, automat., kontrola, 1955, 1, No 5-6, 169

Abstract : It is noted that in recent time many countries introduced the kilopond unit of force instead of the kilogram-force. See also Referat Zhur Fizika, 1956, 13056.

Card : 1/1

OBALSKI, J., and others.

International Conference on Measuring Techniques in Budapest, November 24-30, 1959. p.172

POMIARY, AUTOMATYKA, KONTROLA. (Naczelna Organizacja Techniczna)
Warszawa, Poland
Vol. 5, no. 5, May 1959

Monthly list of East European Accessions (EEAI) LC Vol. 8, no. 9
Sept. 1959
Uncl.

S/115/60/000/06/04/031
B007/B014

AUTHORS: Obal'skiy, Ya., Professor, Doctor, Voytyla, V., Chief Engineer

TITLE: Measuring Technique and Metrological Service in the Polish People's Republic

PERIODICAL: Izmeritel'naya tekhnika, 1960, No. 6, pp. 7-8

TEXT: This is a survey of the work performed in Poland in the fields of metrology and measuring technique under the supervision of the Main Administration for Measures. The largest number of measures was examined by seven regional and 63 district administrations, whereas the Main Administration for Measures examines only special and high-precision instruments. The Main Administration for Measures has more than 24 laboratories, a design office, and mechanical workshops. Of the total number of 960 collaborators of the Metrological Service, 272 persons work at the Main Administration for Measures. The various laboratories of the latter are enumerated. The set of four State platinum standards used by laboratories for measurements of length is compared with standards of the International Bureau of

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Measuring Technique and Metrological Service in the Polish People's Republic

S/115/60/000/06/04/031
B007/B014

Measures and Weights and with those of the VNIIM im. D. I. Mendeleyeva (VNIIM imeni D. I. Mendeleyev). The small number of standard instruments and experts are described as being the main disadvantages. Small series of special instruments are manufactured by workshops, laboratories, and at the chairs of the following institutions: Institute of Electrical Engineering, Central Laboratory of Measuring Apparatus, Institute of Thermal Engineering as well as numerous institutes of the various branches of industry. The Polish Academy of Sciences has taken the initiative in the examination of new measuring techniques and in the development of new apparatus. A Department of Precision Mechanics was established at the Warsaw Polytechnic Institute in 1953. It comprises the Chairs of Technical Metrology, Design of Precision Instruments, Optics, and Automation. The Main Administration for Measures and the Society of Polish Engineers, Technicians, and Mechanics (SIMP) organized courses for co-workers of measurement laboratories of the machine-building and electrotechnical industries. A conference on precision mechanics and measuring technique was held in 1958 by the Section of Metrology and Precision Mechanics of SIMP. It was also attended by experts from abroad. The periodical "Pomiary, automatyka, kontrola" was founded in 1955. In 1950, a documentation center of metrology

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Measuring Technique and Metrological Service in the Polish People's Republic

S/115/60/000/06/04/031
B007/B014

was established at the Main Administration for Measures. The 1958 International Conference on Measuring Technique was organized in Budapest by Poland jointly with the USSR and Hungary. Finally, the authors enumerate the most important tasks of measuring technique, referring to the decisions of the Sixth Plenary Meeting of the Central Committee of the United Labor Party of Poland, which took place between January 20 and 22, 1960.

Card 3/3

84459
P/034/60/000/008/003/003
A225/A026

13.2940

AUTHOR: Obalski, Jan, Professor, Doctor of Engineering

TITLE: On the Determination of the Limits of Acceptable Inaccuracies During the Initial Check on Measuring Instruments

PERIODICAL: Pomiary-Automatyka-Kontrola, 1960, No. 8, pp. 307-310

TEXT: Every measuring instrument is checked at the end of the production line and adjusted in such a way as to arrive at an average measuring error equal to 0. However, this adjustment cannot be absolutely accurate due to certain tolerances in constructional and technological parameters, and consequently each instrument will incorporate a certain calculated error, which might be called "adjustment error". During the checking at the end of the production an additional error may arise, which may be a result of inaccurate observation or the sum of the inaccuracies of the tested instrument and of the test instrument. Besides, both instruments may have somewhat differing characteristics, different friction, idling movements, etc. This may be called "checking error". If the adjusted instrument shows an error $< (a)$ during the initial check, it will be passed on to the official check, if the error is $> (a)$, it is returned for a

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OBALSKI, Jan, prof., dr.

"Measurement, production and maintaining of high and low temperatures" by Hansgeorg Laporte. Reviewed by J. Obalski. Pomiary 8 no.4:207-208 Ap '62

1. Redaktor naczelny miesiecznika "Pomiary Automatyka Kontrola"

OBALSKI, J., prof. dr.

"Technical physics" by [Dr. Phil. Hab.] Werner Holzmuller. Vol. 1. Reviewed by J. Obalski. Pomiary 9 no.6:268 Je '63.

[illegible], Jerzy, mgr.inż.; [illegible]; [illegible], mgr.inż.; WIŚNIEWSKI, Jerzy; [illegible], Wyszart, [illegible].

Review of publications. [illegible] .8:37-373 J1'64

OBARA, Tadeusz, dr.; DERECKI, Juliusz; FORGALSKI, Wieslaw; TOTH, Zbigniew

Studies on the use of radioactive iron (Fe59) in clinical diagnosis of various hematologic syndromes. Pol. przegl. radiol. 28 no.6:587-593 N-D '64.

1. Z Osrodka Ochrony Radiologicznej i Radiobiologii w Warszawie (Kierownik: dr. T. Obara).

OBARSKI, Adam

Perspectives in gypsum; too much and not enough. Przem mat bud 9 no.7:1-2 F '62.

OBARSKI, Adam

The worke[illegible] of Krotoszyn Town were 26 years age victorious. Przem mat budow[illegible] no.17:3 30 Ap '62.

OBARSKI, Adam

The black quarter in Witaszyce Plants. Przem mat budowl 9 no.20:2 My '62.

OBARSKI, Adam

Notes from the 1st Conference on Labor Medicine. Pt. 2.
The search for [illegible]. Przem mat budowl 9 no.24:3 Je '62.

OBARSKI, Adam

A glass plant on piles; on the construction of the Sandomierz Glass Works. Przem mat bud 9 no.28:1, 2 16 Jl '62.

OBARSKI, Adam

A new characteristic feature of "Polish Florence," the new glass works in Sandomierz. Przem mat bud 9 no.29/30:3 22 Jl '62.

OBARSKI, Adam

After one year, a turning point in the construction of the Sandomierz Glass Works. Pt. 3. Przem mat bud 9 no.31:3 30 Jl '62.

OBARSKI, Adam

An amazing glass plant; an interview with engineers Piwowarczyk and Bajtyngier on the Sandomierz Glass Works. Przem mat bud 9 no.32:3 6 Ag '62.

OBARSKI, Adam

Air pollution has been bothering everybody. Przem mat budowl 21 no.21:1-3 My '62.

OBARSKI, J.

Humidfying tobacco by means of condensed steam.

p. 279, Vol. 9, no. 7, July 1955. PRZEMYSL SPOZYWCZY. Warszawa.

So: East Europenan Accessions List, (EEAL), LC, Vol. 5, no. 2, Feb. 1956

OBASHEV, S. O.

USSR/ Astronomy - Prominences

Card 1/1 Pub. 22 - 14/53

Authors : Idlis, G. M.; Karimov, M. G.; Delone, A. B.; and Obashev, S. O.

Title : Determination of the intensity of the magnetic field in prominences by the movement of nodes on the picture plane

Periodical : Dok. AN SSSR 102/4, 707-710, Jun 1, 1955

Abstract : Various methods of determining the magnetic field inside prominences are analyzed. Eight references: 3 USA and 5 USSR (1949-1953). Table.

Institution : The Acad. of Sc., Kaz. SSR, Astrophysical Institute, Alma Ata

Presented by: Academician V. G. Fesenkov, February 21, 1955

OBASHEV, S.O.

KARIMOV, K.A.; DELONE, A.B.; OBASHEV, S.O.

Observations of the solar corona not connected with an eclipse at the Astrophysics Institute of the Academy of Sciences of the Kazakh S.S.R. Astron.tsir. no.157:23-24 F'55. (MLRA 8:10)

1. Astrofizicheskiy institut AN KazSSR
(Sun--Corona)

IDLIS, G.M.; KARIMOV, M.G.; DELONE, A.B.; OBASHEV, S.O.

Determining the intensity of the magnetic field in prominences on the basis of investigation of their internal movements. Izv.Astrofiz.inst.AN Kazakh.SSR 2:71-96 '56. (MIRA 15:9)
(Sun--Prominences)
(Magnetic fields (Cosmic physics))

KARIMOV, M.G.; OBASHEV, S.O.

Observation of the total solar eclipse of June 30, 1954, by the expedition of the Astrophysical Institute of the Academy of Sciences of the Kazakh S.S.R. Izv.Astrofiz.inst.AN Kazakh. SSR 2:97-102 '56. (MIRA 15:9)
(Eclipses, Solar--1954)

KARIMOV, M.I.; OBASHEV, S.O.

Investigating the coronal spectrograph and determining the temperature of the inner corona by means of spectrograms obtained without an eclipse [with summary in English]. Izv.Astrofiz. inst. AN Kazakh.SSR 5 no.7:66-72 '57. (MLRA 10:7)
(Sun--Corona) (Spectrograph)

KARIMOV, M.G.; MAKAROVA, Ye.A.; OBASHEV, S.O.

Observation of the structure of the corona in the 5694 A yellow line outside eclipse. Astron.tsir. no.180:20-22 My '57. (MIRA 13:4)

1. Astrofizicheskiy institut AN KazSSR i Gosudarstvennyy astronomicheskiy institut im. Shternberga.
(Sun--Corona)

OBASHEV, S.O.

Polarization of prismatic spectographs [with summary in English]. Izv. Astrofiz.inst. Kazakh. SSR 7:79-81 '58. (MIRA 11:7)
(Spectograph)

87233

3,1540 (1062, 1128, 1168)

S/035/60/000/011/008/010
A001/A001

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1960, No. 11, pp. 59-60, # 11340

AUTHOR: Obashev, S.O.

TITLE: On the Explanation of Observed Shapes of Prominences

PERIODICAL: Solnechnyye dannyye, 1959, No. 7, pp. 89-90

TEXT: An estimate of the speed of a prominence motion was made on the basis of measuring the motion picture in $H\alpha$ -line of an active prominence of October 23, 1957. The rise of the prominence proceeded along a quite definite arc at a speed of 1.5×10^7 cm/sec up to an altitude of 145,000 km. In the course of rising the prominence disintegrated into separate jets. Assuming that in the region of prominence disintegration into jets the kinetic energy of motion is balanced by the magnetic energy, the author estimated the intensity of the magnetic field as being H = 10 gauss. On the other hand, on the basis of the aurora theory of S.B. Pikel'ner and making use of the observed curvature

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87233

On the Explanation of Observed Shapes of Prominences

S/035/60/000/011/008/010
A001/A001

of individual luminous jets, the author estimated the intensity of the magnetic field $H \geqslant 10$ gauss. Thus, a local magnetic field of considerable intensity exists in the corona zone, which affects the formation of prominences.

G.S. Ivanov - Kholodnyy

Translator's note: This is the full translation of the original Russian abstract

Card 2/2

87356

S/035/60/000/012/014/019
A001/A001

3.1540(1062, 1128, 1168)

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, [illegible]
p. 52, # 12289

AUTHOR: Obashev, S. O.

TITLE: On the Electromagnetic Mechanism of Heating Solar Prominences

PERIODICAL: Izv. Astrofiz. in-ta AN KazSSR, 1959, Vol 8, pp. 64-67 (English summary)

TEXT: The theory of A. B. Severnyy (Dokl. AN SSSR, 1950, Vol. 33) is criticized; according to this theory, the lifetime of a prominence is determined by the heating of the prominence by the corona by means of ordinary heat conductivity, no effect of a magnetic field is taken into account. The author proposes the mechanism of prominence heating by the electromagnetic field on account of liberation of Joule heat. On this assumption, the lifetime τ of a prominence with size l and density ρ is determined by the time of disintegration of the magnetic field with intensity H; it is equal to: $\tau = 4\pi l \rho^{1/2} H^{-1}$. The estimate of the field intensity of the prominence of July 9, 1953, made by using this formula, agrees

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S/035/60/000/012/014/019
A001/A001

On the Electromagnetic Mechanism of Heating Solar Prominences

with the estimate based on the prominence motion. The use of the same [illegible] explain, in the author's opinion, the shorter time of eruptive prominences possessing more intense magnetic fields, since they emerge in regions of sunspots. With the higher field intensity and shorter lifetime of eruptive prominences, the rate of dissipation is greater than that of the quiet ones. Thereby can also be explained the higher temperature of eruptive prominences. The author estimates energy losses of the prominence magnetic field in a column of 1 cm^2 cross section ($\sim 10^8$ erg/sec); radiative energy losses of the prominence, amounting to about 10^6 erg/cm^2sec, can be fully covered by this process. There are 7 references.

G. S. Ivanov-Kholodnyy

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

3(1)

AUTHOR: Obashev, S. O. SOV/20-124-4-15/67

TITLE: Ejection in the Emission of H_α (Vybros v emissii H_α)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 4, pp 786-787 (USSR)

ABSTRACT: The author bases his investigation on the concepts of the geoactive flow and discusses the material obtained by observations carried out by the Koronal'naya stantsiya Astrofizicheskogo instituta AN KazSSR (Corona Station of the Astrophysical Institute AS Kazakhskaya SSR). On October 31, 1957 3 spectrograms were obtained by means of the corona-spectrograph (Ref 5) within the range of H_α in one and the same angle within short intervals of time (60 sec each). The circular opening was at a distance of 60" from the sun. On another spectrogram (which is illustrated) a small emission was recorded together with the line H_α of protuberance, which is at a distance of 16 Å from the center of the H_α-line (towards the violet side). If this emission is due to the geoactive ejection currents, velocity is of the order

Card 1/3

of $v \sim 7.3.10^7 cm.sec^{-1}$, i.e. $v > v_\infty$ holds, where v_∞ is the parabolic velocity on the surface of the sun (617 km/sec). Thus, the emission apparently originates from an ejection consisting of hydrogen and moving with geoactive velocity. The extent of the ejection can be estimated by direct measurement of the spectrogram. A rough estimate gives the value $1 \sim 10^{10}$ cm for the length of the ejection. The thickness of the ejection is then estimated. The observed contour of the emission corresponds to Gaussian distribution. The following conclusion may be drawn from the results obtained by the present paper: The dispersion of particle velocities is within the limits of thermal velocities, and the ejection consists of a compact condensation, which moves with geoactive velocity. Thus, the here discussed case confirms the idea expressed by E. P. Mustel' that at some places of the solar surface low condensations of matter are occasionally ejected, and that they may be observed in the emission. There are 1 figure and 7 references, 4 of which are Soviet.

Ejection in the Emission of H_α 30V/2o-124-4-15/67

ASSOCIATION: Astrofizicheskiy institut Akademii nauk KazSSR
(Astrophysical Institute of the Academy of Sciences,
Kazakhskaya SSR)

PRESENTED: October 20, 1958, by V. G. Fesenkov, Academician

SUBMITTED: October 17, 1958

Card 3/3

OBASHEV, S.O.

PHASE I BOOK EXPLOITATION SOV/4605

Akademiya nauk SSSR. Astrofizicheskiy institut

Izvestiya, tom 10 (News of the Astrophysics Institute of the Academy of Sciences Kazakhskaya SSR) Alma-Ata, 1960. 100 p. 750 copies printed.

Editorial Board: G. M. Idlis, M. G. Karimov, Z. V. Karyagina (Secretary), D. A. Rozhkovskiy, and V. G. Fesenkov (Resp. Ed.); Eds.: L. S. Ribondikovskaya, and M. Ya. Brailovskaya; Tech. Ed.: V. P. Prokhorov.

PURPOSE: This publication is intended for astrophysicists.

COVERAGE: This is a collection of 13 articles on problems in astrophysics. Individual articles discuss: the forces of gravity, radiative pressure, and inter-reaction of heavenly bodies; the distribution of surface brightness in reflecting nebulae; the relative motion of double stars with corpuscular emission; the photographic determination of the position of the sodium cloud released by the second Soviet cosmic rocket; the relationship between the decrease in the kinetic temperature of the corona and its monochromatic emission in the region of protuberances; the relationship between the velocities of moving sunspot protuberances and variations in their brightness; the ratio of photo-emulsion density to the polarization plane of light falling at different angles; airglow emissions in the red band spectrum as observed from Alma-Ata; brightness and polarization of the daytime sky observed in the almucantar of the sun in August 1956 in Alma-Ata; the effect of aerosols in the scattering of light in the near-surface layer; the results of an investigation of the absorption function in the p water vapor band; the distribution of energy in the spectrum of the daytime sky. No personalities are mentioned. Each article is accompanied by a brief English summary and references.

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OBASHEV, S. O. and KARIMOV, M. G.

"Possible interpretation of observed displacements of lines in corona and prominences."

report to be submitted for the IAU Symposium on the Corona, Cloudcroft, New Mexico, 28-30 Aug 1961.

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E032/E314

AUTHOR: Obashev, S.O.

TITLE: On the structure of the corona over prominences

SOURCE: Akademiya nauk Kazakhskoy SSR. Astrofizicheskiy institut. Izvestiya. v.12, 1961, 78-81

TEXT: Inspection of photographs of prominences at the solar limb has led to the conclusion that the structure of the corona above prominences suggests the presence of a periodic variation in the density. The present author reports simple calculations of the possible effect of magnetosonic waves on a quasi-neutral plasma in a magnetic field, e.g. the solar corona. The magnetosonic waves are assumed to be excited during the appearance of the prominences and their velocity is known to be equal to the velocity of Alfven waves (Ref. 6: Syrovatskiy, S.I. Magnetic hydrodynamics, UFN, v.12, 1957, no.3, p. 247). However, when a magnetosonic wave is propagated across the magnetic field the latter is disturbed, with the result that a wave-like variation in the density of the medium is produced. Simple estimates are used to show that the magnetosonic waves may produce a

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periodic fluctuation of the order of 10% in the intensity emitted by the corona immediately above prominences. There are 1 figure and 7 references: 5 Soviet-bloc and 2 non-Soviet-bloc. The English-language reference reads as follows:
Ref. 7: Billings, D.E. Astroph. Journal, 1959, 130, 1, 215.

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F032/F514

AUTHOR: Obashev, S.O.

TITLE: Some properties of coronal emission lines in the neighbourhood of sunspots

SOURCE: Akademiya nauk Kazakhskoy SSR. Astrofizicheskiy institut. Izvestiya v 12, 1961, 82-90

TEXT: M. Waldmeier (Ref 3 / f Aph 20, 3, 184, 1940) occasionally observed an absorption line at the centre of the coronal lines λ 5303 FeXIV and λ 6374 FeX. Moreover the width of the coronal absorption line in the green line is greater than in the red one. Waldmeier interpreted the absorption line in terms of self-reversal. The present author argues that the effect observed by Waldmeier is not due to self-reversal and must be explained in other ways. Thus, it is known that the solar corona is a very irregular medium and consists largely of ray-like systems which are oriented in an arbitrary way relative to the line of sight. If the line of sight intersects a dense ray and the matter contained within it moves with a velocity v to the coronal lines observed in that particular direction sp[illegible]

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a Doppler shift determined by the velocity component in the direction of the line of sight The presence of such directed motions means that the broadening of the coronal lines is not solely due to thermal motion The presence of a magnetic field ensures that the motion in the corona takes place mainly in the direction of the field The simultaneous effect of the thermal and directed motions in the presence of two rays as indicated in Fig 1, leads to the splitting of the coronal line as shown in Fig 2, where the two maxima are separated by a distance of the order of $(2v_{\lambda}/c)\lambda$ Å. There is thus an apparent self-reversal effect It is shown that there may be a region above a sunspot where the density is low as compared with the surrounding regions and, since the emission per unit volume is proportional to the square of the electron density even a small difference in the concentration may give rise to an appreciable difference in the surface brightness On the other hand, the above Doppler doubling gives rise to the Waldmeie dip in the intensity Fig 2 was calculated for a directed motion with a velocity of 15 km/sec and a coronal temperature of 1.5×10^6 °K The width of the

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central dip depends largely on the temperature of the coronal gas and the magnetic moment of the sunspots. By measuring the width of the dip with a high resolution spectrograph pointed at an active region, one can determine the magnetic moment of sunspots if the average density of matter in the corona is known. It is concluded that the present theory can successfully explain the dip in the centre of coronal lines and the total transparency of the corona to its intrinsic emission. There are 4 figures and 15 references: 10 Soviet-bloc and 5 non-Soviet-bloc. The English-language references reads as follows: Ref.8: Correll M., Hazen M. Bahng J: Ast. Journal, 124, 3, 1956;

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AUTHORS: Idlis, G.M. and Obashev, S.O.

TITLE: The magnetic field and the period of rotation of Venus

SOURCE: Akademiya nauk Kazakhskoy SSR. Astrofizicheskiy institut. Izvestiya, v.12, 1961, 91-92

TEXT: A review of published information on the rotation of Venus lead the present authors to the conclusion that the period of rotation of Venus is of the order of 14 days, although it is pointed out that this estimate may be o[illegible] but by not [illegible] than a factor of 2. If it is assumed that the magnetic moment of a planet is proportional to its rotational angular momentum and that the mass, the dimensions and the structure of Venus are similar to that of the Earth, then its magnetic moment turns out to be of the order of $6 \times 10^{25}/T$ gauss cm^3. On the other hand, T. Houtgast [Ref. 2] Indication of a magnetic field of the planet Venus. Nature, 1955, 175, 4459, 678-679) has estimated that the magnetic moment should be greater by two orders of magnitude than that given by the above relation. The present authors argue that observations of strong auroras on Venus and their interpretation in terms of

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radiation belts retained by the magnetic field and supplied by solar corpuscular streams tends to favour their estimate as opposed to Houtgast's estimate. The general conclusion is that the magnetic moment of Venus should be ascertained as 4×10^{24} gauss cm^3. There are 2 references to Soviet-bloc and 13 non-Soviet-bloc. The four latest English-language references read as follows: Ref 9: Ehrsoft V. V. Venus through colour filters. Brit Astron Assoc. 1957, 67, 2, 66-75. Ref 10: Read, J. V. The cloud markings of Venus and factors governing their visibility. South. Stars, 1958, 17, 5, 92-96. Ref 17: Braus, I. D. Recent observations of radiosignals from Venus at 11 meters wave length. A. J., 1957, 62, 1, 21. Ref 24: Warner, The emission spectrum of the night side of Venus. M. N., 1961, 121, 3, 279-283.

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AUTHOR: Obashev, S.O.

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D055/D114

TITLE: The geomagnetic effect of the Tunguska meteorite

SOURCE: Akademiya nauk SSSR. Komitet po meteoritam. Meteoritika, no. 21, 1961, 49-51

TEXT: The present article is a survey of the geomagnetic disturbance, which was caused by the explosion of the comet's head, and the effect of the delay on the interaction of the plasma, i.e. the material in the gaseous tail, which has the properties of a corpuscular stream, with the magnetic field; the limited nature of the area involved in the disturbance is shown. The author disagrees with G.M. Idlis (Abstracter's note: see abstract 002) who tries to explain the geomagnetic effect by the action of the meteor's tail, which consisted, according to Idlis, of both gas and dust. The scale of the disturbance occasioned by the gas component should have been constant everywhere, particularly in Irkutsk, but this is contradicted by data from observations which show that between June 25 and July 5, 1908, observatories and geophysical stations in Europe situated above and below the latitude of Irkutsk registered no magnetic disturbance at all. It is fair to assume that the meteor exploded in the air. There is no doubt that after the explosion a

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dense plasma was formed at a high temperature. It expanded at a certain rate. This expansion across the geomagnetic field would stop when the kinetic pressure equalled the magnetic pressure, i.e.

$$\frac{H^2}{8\pi} = \frac{1}{2}\frac{M}{V}v^2 , \qquad (2)$$

where H is the intensity of the Earth's geomagnetic field at the point of the explosion; M - the mass, v - the rate, V - the final volume of the plasma. The time taken by the plasma to reach its final volume is

$$t = \frac{R}{v} , \qquad (3)$$

where R is the dimension which satisfies the ratio (2) and which is equal, given spherical expansion, to

$$R = \left(\frac{3V}{4\pi}\right)^{1/3} , \qquad (4)$$

The kinetic energy is $E = \frac{1}{2}Mv^2$. (5)

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From these four expressions we have

$$t = \frac{6^{\frac{1}{3}} M^{\frac{1}{2}}}{2^{\frac{1}{2}} H^{\frac{2}{3}} E^{\frac{1}{6}}} . \qquad (6)$$

This time must equal the time delay of the geomagnetic disturbances because during the time t there is no dividing of the charges which condition the magnetic effect. The Earth's field is like a dipole (for distances $R > R_{\oplus}$), the intensity of which hardly changes at small heights ($H \simeq 0.6$ gauss). If we substitute the numerical values of the parameters in (6) and assume that the kinetic energy is consumed in heat, light and ionization in the proportion $10^4 : 10^2 : 1$, we have

$$t = 3.9 \text{ min},$$

which accords well with the observed interval of delay. Hence it appears that there is a natural explanation for the delay. After the time t has elapsed, expansion of the ionized-gas cloud across the field ceases and only the movement along the lines of force of the Earth's magnetic field continues; the charges divide and move in different directions. If these

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charges are regarded as forming a dipole, its field inside the volume will be opposite to the geomagnetic field. This dipole creates a magnetic field over considerable distances and this is registered as a disturbance in the Earth's magnetic field. The magnetic moment of the field, according to (5), is

$$\mu = \frac{E_0}{H} , \qquad (7)$$

where E_0 is part of the energy of the explosion, equal to $\approx 2 \cdot 10^{19}$ erg. The scale of the disturbance over distance is

$$\Delta H = \mu \cdot \frac{1}{R^3} = \frac{E_0}{HR^3} . \qquad (8)$$

Substituting numerical values we have

$$\Delta H \approx 4 \cdot 10^{-5} \text{ gauss} , \qquad (8')$$

which corresponds to the initial figure registered at Irkutsk, at a distance of $R \approx 10^3$ km. Since $\Delta H \sim \frac{1}{R^3}$ the magnetic disturbance caused by the explosion